TECHNICAL DRAFT OF HUMAN NATURE.

I. Abstract.

Recent advances in anthropology, historiography, psychometrics, and sociology have revealed the underpinnings of human behaviour may be of a more pragmatic nature than once thought. We therefore propose a comprehensive general model of human nature and its underlying mechanics, their biosocial evolution, as well as their intended and resultant functionality at the micro-, meso-, and macro-sociological scales, in addition to an examination of its potential consequences and ramifications.

We conclude that all humans are rational actors that act in their own *perceived* interest under bounded rationality, and that such an interest is to maximise access to material/psychological resources, and that this is the primary driver behind long-term human personality and behaviour. From its expression as a recurrent function, we construct a general agent-based model of human nature.

II. Parameters.

- **List of Parameters**

  Model parameters have been built to express the set of all real-world conditions a subject may potentially experience. They have been reduced to two Environmental Parameters, and 5 Genetic Parameters (See **Labour Optimisation as the Primary Mode of Natural Human Condition** and **Subordinate Dependency Hypothesis** for their deduction). However, due to programmatic requirements of the model as a recurrent function, some secondary characteristics have also been included. They have been marked as such. The list of parameters then, is as follows:

  - **Environmental.**
    - Power: access to material/psychological resources.
    - Labour: effort/suffering expended in recent memory.
    - Captivity (Secondary): locks a person into a given power position; breeds dependency over time.
      - Subjugative Environment (Secondary, Boolean)
      - Unreasoned Aggressive Environment (Secondary, Boolean)
    - Dependency (Secondary): reduces the amount (upper sinusoidal bound) of labour willing to be expended over time; increases the likelihood of mental conditions arising.
  - **Genetic.**
    - Atypicality: represents non-maladaptive mental disorders/neurodiverse conditions.

- Neuroticism: genetic predisposition to maladaptive mental disorders (e.g. hyperaggression, schizophrenia).

- Conflict Avoidance: acts as a moderator on egoism, trading pure Machiavellianism for idealism. People with high conflict avoidance are likely to value relationships (psychological resources, long-term) more highly than those without.
- Egoism: the *capacity* to fulfil one's self-interest. By definition, this includes intelligence and also drives the Instinct of Superiority.
- Labour Inefficiency Tolerance: acts as a second modifier upon egoism, where labour inefficiency refers to a high labour to low power ratio. People with high labour inefficiency tolerance are willing to invest more labour in return for less power.

- **Environmental Parameters**

Environment is a broadly-defined concept that includes all factors that shape human behaviour apart from genetics. In this way, it has been constructed into a scientific truism. Anything not genetic is regarded as environmental, and anything not regarded as environmental as genetic.

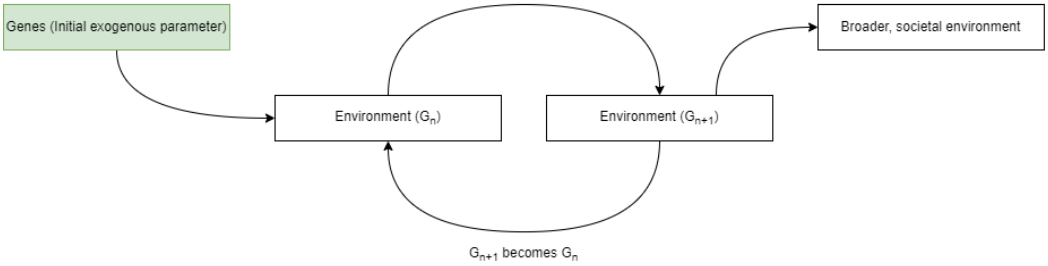
It should be noted that they can be properly expressed as functional parameters since both are deterministic. Environment is determined, and genetics are determined.

- **Nature vs. Nurture**

The model believes that genes and environments interact with each other, such that in a single generation, genetic disposition may be responsible for only ~5-20% of human personality and behaviour (with a typical upper bound between 10-12%) for most behaviours, but that it can produce a domestic/familial environment where that 5-20% compounds into a much greater effect over multiple generations.

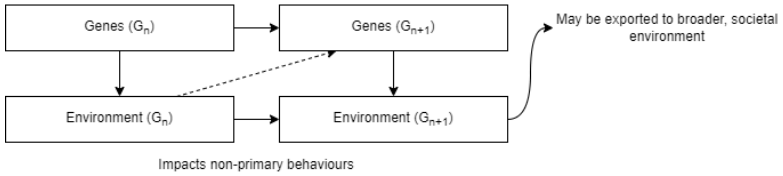
If the subject were to be separated from the theoretically genetically produced environment, we believe that the individual will largely revert back to their base 5-20%. High heritability numbers in the literature such as ~30-70%+ for non-congenital/non-perinatal conditions almost universally come from flawed methodologies involving both twin studies and Falconer's formula, which is mathematically biased upwards by at least 100% (See **Critique of Falconer's Formula** for more information).

MODEL A.



Primarily congenital traits (e.g. ADHD, autism, etc.) are regarded as following the epidemiological model, or Model B. These are a relatively small number of conditions and well-established.

MODEL B.



- **Material/Psychological Resources**

  All human needs have been divided into two categories:

  - Material resources: physical objects that are perceived as having use/value by a person (e.g. food, water, shelter, utilities, etc.)
  - Psychological resources: immaterial qualities that make someone feel better (e.g. relationships, prestige, high/low pleasure, etc.)

  This is a truistic dichotomy, in which there are no cases in which an object is both not material and not psychological. Together, access to these resources are referred to in the model as power.

  This raises three important questions, which have been detailed below:

  - A) Whether psychological/material resources can be conveyed as a single number, or whether a more detailed taxonomy is required,

- B) How someone's needs in terms of their material-to-psychological resources ratio actually changes over time, or what range that initial ratio typically falls into. It is known to be biased in favour of psychological resources, but it is currently unclear why, although it is still hypothesised they are subordinate to material resources, or a subconscious symbolism thereof,
- C) The time window in which people prefer access to resources, and whether they emphasise short-term gains over longer-term ones. This is dependent on individual personality, and is referred to here as 'termedness'.

We provide hypotheses to some of these questions, and answers as to their technical implementation.

A. Although the model is likely to benefit from a more detailed taxonomy, our assumptions are that material/psychological needs may be treated as a single number. To take material needs as an example, a demand pyramid similar to Maslow's is built up in such a way that it becomes linear (Survival > Necessary > Inferior/Substitute > Normal > Luxury, per Economics). As a result, a single number is sufficient for an abstraction.

   This also holds for psychological needs. The golden window of linguistic acquisition and the requirement for children to have human contact to develop normally points to the idea of some form of linear order of requirements, even if it has proven harder to define.

B. Although the precise ratio is a likely function of personality and genetic disposition, the primacy of psychological needs likely follows from A.

   Humans are a social species, and so relationships are required both for enculturation and to provide materially during early stages of child development. Unlike many other species, humans are not naturally autarkic and have placed greater emphasis on intelligence - and thereby socialisation and psychological resources.

   Finally, a biological basis is given by one of two key components of evolutionary fitness - those being food/water (material needs), and mating (in humans, a psychological resource).

C. These are likely functions of individual personality, plus genetic disposition. It is known that some characteristics cause termedness to be shorter (inattention, aggression). It may also have to do with one's core beliefs and values, in addition to age - particularly in terms of remaining life expectancy.

Although not as detailed as we'd like, these nevertheless serve as firm foundations for a programmatic model.

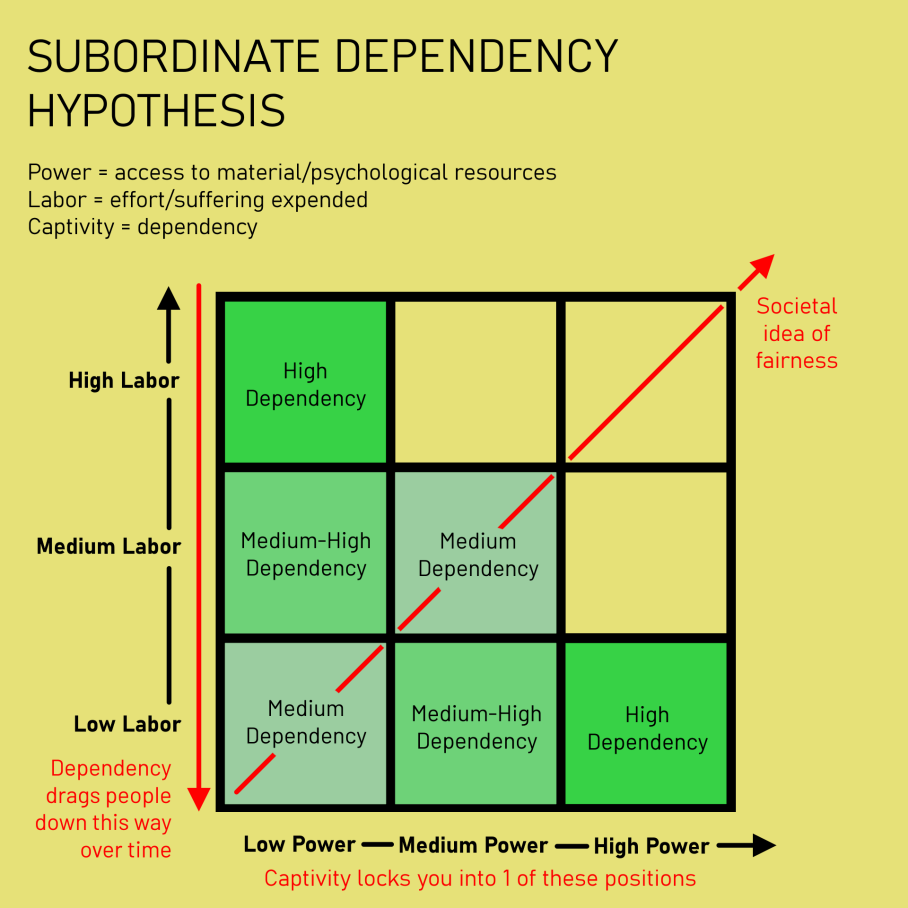
- **Labour Optimisation as the Primary Mode of Natural Human Condition**

  It is hypothesised that labour optimisation represents the primary conditions under which human nature may be altered, with genetic disposition and perinatal development acting as a middleman. Thus, parameters under which a potential model might be tested in situations analogous to real-world conditions are the resultant permutations of labour and power:

  - High Labour, High Power
  - High Labour, Medium Power
  - High Labour, Low Power
  - Medium Labour, High Power
  - Medium Labour, Medium Power
  - Medium Labour, Low Power
  - Low Labour, High Power
  - Low Labour, Medium Power
  - Low Labour, Low Power

  And various other permutations along a discrete scale along the definitions given in **List of Parameters**. Prolonged labour inefficiency may be biologically coded to result in depressive/psychosomatic symptoms along the energy minimisation hypothesis, shifting an individual from the general population towards the **Passive-Active Spectrum**.

    - **Subordinate Dependency Hypothesis**



Needs are especially exacerbated in childhood, where access to both psychological and material resources are required, and their deprivation may lead to permanent mental conditions and a change in dominant strategy towards bargaining.

Under the **Subordinate Dependency Hypothesis**, Captivity is given as an independent variable which locks an individual into a given power position, breeding Dependency over time. It is so named as they are subordinate to relations between Power and Labour.

Note that Labour Efficiency (where low labour for high power is optimal) is not the same as Labour Disparity (difference between labour and power). Labour Efficiency is sought biologically, whilst lowering Labour Disparity results in longer-term satisfaction in modern environments by avoiding a trap of high Dependency.

Additionally, Captivity should also be subdivided into Reasoned vs. Unreasoned Aggressive Environments as a boolean flag. One is abuse

for the purposes of subjugation and control, whilst the other is terror for the sake of terror - that is, the extraction of short-term psychological resources on behalf of the perpetrator.

It is hypothesised that aggression is bred in the latter case as there is no way for the victim to escape violence, and therefore they must respond in kind; whilst the former tends to breed passivity as a victim can potentially yield to their captor to avoid brutalisation.

- **Genetic Parameters**

Transgenerational genetic heritability will not be modelled in the first iterations of the model as they focus on the individual rather than genetic/environmental parameters at the mesosocial level. However, gene-environment interaction is planned to be included at some point in the future.

- **Innate Heritability/Perinatal Development**

Broadly speaking, heritability is defined by the model as including genetic disposition in addition to perinatal development, which includes environmental influences that act upon a foetus in the womb. These are both regarded as heritability, although 'innate heritability' is restricted purely to genetic influence.

- **Atypicality/Neuroticism/Conflict Avoidance/Egoism/Labour Inefficiency Tolerance**

Genetic parameter strength in the model is planned to be adjustable, although by default they will sit near scientifically established rates (~5-20%) from non-twin studies. Unlike environmental parameters, these remain constant and are as follows, where fields analogous to positions in Dual Concern Theory are given as **DCTA** (Dual Concern Theory, Analogous to), and those analogous to positions in Big Five are similarly abbreviated **B5A**.

Note these do not give equivalencies, but are included for expository purposes.

Mental Health.

- Atypicality (Non-Maladaptive Mental Disorders)

Neurodiverse conditions such as ADHD/Autism that are not necessarily impairing on their own, but because they do not fit into the demands of normative society are regarded as belonging to Atypicality.

This field may also be taken to include predisposition to maladaptive disorders in the future, such as depression, as it makes groups more vulnerable societally. **DCTA:** Collaborating | **B5A:** Openness

- Neuroticism (Externalising Maladaptive Mental Disorders)

  Represents heritability of conditions such as aggression, sociopathy, sadism, etc. These can then be exacerbated/moderated in the future by environment.

  It was decided that these were likely innate due to higher heritability rates when compared to maladaptive internalising disorders such as depression, as well as evidence both for unexplainable childhood aggression, and aggression being moderated during one's early childhood. **DCTA:** Competing | **B5A:** Neuroticism

  Personality.

- Conflict Avoidance

  Acts as a modifier on pure egoism by reducing cut-throat and Machiavellian tendencies and valuing long-lasting social connections over material gain. **DCTA:** Yielding | **B5A:** Agreeableness

- Egoism

  Drives an individual's Instinct of Superiority and represents the *capacity* for one to fulfil their own self-interests, including intelligence. Note that captivity does not reduce egoism, since egoism represents internal capacity. A person may be highly capable intellectually, but that capability is only capability if they are constantly beaten, terrorised and robbed.

  Chronic conditions (e.g. lifelong anhedonia) however, do inhibit one's Instinct of Superiority. Intelligence may also change drastically over time (e.g. a lobotomised patient will lose internal capacity for power, and thereby Egoism). **DCTA:** Compromising | **B5A:** Extraversion

- Labour Inefficiency Tolerance

  Represents the willingness of a person to endure high labour to low power ratios, or innate work ethic. This is not the same as egoism - someone can work hard, but still fail to secure material/psychological resources. It does however reduce dependency gain. **DCTA:** Avoidance | **B5A:** Conscientiousness

- **Critique of Falconer's Formula**

  Methodologies showcasing high heritability ratios (such as 40-60%) for innate personality characteristics are often partially or wholly based on multiple flawed assumptions, and in some cases, simply make up the majority of their data. In addition, their results remain essentially exclusive to twin studies.

  To give the reader a brief overview of how these twin studies work, they measure various personality and behaviour differences between monozygotic (so-called 'identical twins' assumed to share 100% of their DNA) and dizygotic, or fraternal twins (which are assumed to share exactly 50% of their DNA). This is often because variations in the amount of shared DNA composition are said to be statistically insignificant. For the purposes of this review, we shall operate under the assumption that this is true (Assumption 1).

  A second, commonly-held and equally commonly controversial assumption is known as the Equal Environments Assumption (EEA), which states that both monozygotic ('identical') and dizygotic (fraternal) twins live in perfectly equal environments, and thereby *any disparity in personality characteristics between the two are purely the result of genetics*, despite it having been shown that the monozygotic twins share a more similar environment than dizygotic twins. Proponents of EEA, however, claim that the difference is not statistically significant. For the purposes of this review, we shall again operate the assumption that this is true (Assumption 2).

  We offer the primary critique that the mathematical models used to estimate heritability are deeply flawed. Various equations are used to estimate heritability, and it is of our opinion that many of them are wrong. To use them, and to subsequently purport them to be unbiased is to be, as Asimov's Axiom states, 'wronger than wrong'. We propose a paper with 1349 citations titled 'Are Political Orientations Genetically Transmitted?' to be an example of purposefully inflated heritability estimates.

  It uses an almost universal equation in the field (Falconer's Formula), 2 * (MZ - DZ) to express the total heritability of a political viewpoint.

  That is, it utilises both Assumptions 1 and 2, and assumes the difference between monozygotic (100%) and dizygotic (50%) twins are purely genetic, hence (MZ - DZ). However, because this only accounts for 50% of what the authors view as potential heritability, they then double this data to extrapolate from 50% to 100% potential heritability, thereby producing the resultant equation 2 * (MZ - DZ).

  This flawed logic belies both third and fourth assumptions:

- That dizygotic twins and completely unrelated people share, by the authors' own admission, the same 'equal environment', and that all differences between the two groups are purely genetic (Assumption 3),
- And that an entire half-genome can simply be extrapolated from extant data between different types of twins whilst retaining scientific validity (Assumption 4).

We believe that no study claiming scientific rigour can reasonably extrapolate 50% of its data, fail to explain its mathematical methodology with a formula that can theoretically produce results of 200% heritability (the reasoning behind doubling is not explicitly mentioned in the paper), and then assume some more as seen in both Assumptions 1 and 2. That is, that the majority, or perhaps even the supermajority of the study's heritability estimates are simply made up. Yet it is an almost foundational work in the field of 'biopolitics', or to coin a more precise term, 'biopolitical genetics', and the formula is ubiquitous with 'twin studies'.

Intrafield bias in genetics regarding twin studies may explain such 'suspiciously high heritability' rates between such personality traits as attitudes towards property tax (41% heritable), and socialism (36% heritable) in a twin context, despite the lack of any biologically plausible and explained mechanism of doing so, whilst attitudes towards liberals mysteriously plunge to a mere 18% heritability.

For these reasons, we rely on GWAS studies instead as we hypothesise factors behind upward and downward bias in these tests mostly cancel each other out.

III. Function.

This section refers to the function body, or what is often referred to as the 'black box' of cognition and personality. We believe that it can be intuited, or reverse-engineered in large part through the exercise of evolutionary mechanisms and observations of end-human behaviour under previously mentioned parameters, as evolutionary psychology/psychiatry has attempted to do.

- **Internal Mechanics of Human Nature**

  The internal mechanics of human nature, often seen as driving human behaviour, have long been portrayed as universal in both the philosophical and scientific literature. It may even be said that the universality of human behaviour is foundational to such a concept.

  These universal mechanics have derived primarily from organismic needs and anthropological selective pressures, and there is a body of evidence that suggests human nature is perhaps more primitive than is often publicly portrayed, with prehistoric art developing <50kya, prehistoric music at ~40kya, and the self-domestication

hypothesis placing controlled reduction of animalistic aggression and increased sociality as late as the Lower Neolithic.

We believe that these internal mechanics can largely be divided into one of two main groups, the Instinct of Superiority and the Path of Most Convenience, with a third sub-mechanic of significance under the Instinct of Superiority being labelled the Passive-Active Spectrum, focusing on the aetiology of internalising and overtly externalising characteristics in humans. Collectively, we refer to them as the three mechanics of human nature.

- **Instinct of Superiority**

  The Instinct of Superiority is primarily the resulting product of a dominance hierarchy in social animals, especially primates. It holds that people can actively sacrifice for others, not because they genuinely care about them, but because they have the need for psychological security (inclusion in society), and that need is precipitated by the Instinct of Superiority. That they are culturally or 'morally' bound to live up to an ideal, transforming the pecking order into both a prestige and dominance-based hierarchy.

  However, the Instinct of Superiority also necessitates the manifestation of the emulation of the feeling of genuine care (but lacking actual care, as it is completely self-interested). This can be seen as the difference between the definitions of benevolence ('care' only for the in-group) and universalism ('care' for all) in Schwartz's Theory of Basic Values, which both contrast with each other and are yet perceived as nearly indistinguishable in public perception, both linguistically and epistemologically.

- **Resolving Seeming Paradoxes of Self-Interest and Human Action**

  The notion that care (of both benevolence and universalism) is only self-interested in its entirety is often rejected on personal instead of scientific or rational grounds - as the idea feels inherently uncomfortable to most humans, and raises a number of important and interesting objections:

  - How can a parent or friend sacrifice their life for another human if their care is completely self-interested?
  - In the same vein, how can a person act entirely against their own interest in order to help someone else?
  - What prevents manipulation and 'freeloading' in altruistic relationships?

  Although the answer to many of these questions do not seem obvious at first, note that the Instinct of Superiority is driven by the need for societal inclusion and dominance.

The seeming paradox of someone going against their *rational* self-interest in favour of another can be explained by the fact that this behaviour is only ever witnessed between two members of an in-group. The impetus is given by their need for psychological security, the concept that they must fulfil a cultural ideal in order to have the potential for societal inclusion. This fundamentally increases their prestige and position in the hierarchy (even posthumously), and the action is thereby entirely self-interested.

Whilst posthumous changes in the pecking order, colloquially referred to as one's 'legacy' or 'legacy after death' may not *rationally* be perceived as advantageous, it evolutionarily increased the position of one's family or close in-group, providing a selective pressure towards the social evolution of the concept. However, one also notes the disparity between its practical effects concerning group fitness and its philosophically perceived effects principally concerning the individual and self-interest.

This gap may be seen as principally the result of humans being unable to perceive or imagine their own unconsciousness, thereby subconsciously manifesting the idea of some form of afterlife, even if one consciously professes that they hold no such concept.

Similarly, the third question is known as the 'freeloaders paradox' in anthropology and is solved much the same way, as known freeloaders are often excluded from the group or from social relations, dramatically lowering their fitness. Evolutionally however, there initially existed no social mechanisms to police cooperation and boot out freeloaders.

A genetic explanation can be found through what we will refer to as the Topmost Polity Theory, by which there exist two measures of evolutionary fitness in social animals: individual fitness and group fitness (that of the topmost polity, which is also seen as an organism of its own). Although altruism lowered individual fitness, it increased group fitness - which in small groups, often meant the fitness of relatives capable of carrying on genetic information associated with altruism, whereas groups that failed to socially evolve altruistic traits may have either declined, disbanded, or gone extinct.

Submechanics.

The three main mechanics of human nature also share an overlap with a variety of submechanics underneath the Instinct of Superiority, which have been termed 'Us vs. Them' (this term was chosen instead of in-group/out-group in the interest of public accessibility) and 'Will to Self-Improvement' respectively.

These are guided by the notion of Classical Superiority, a type of egoism that functions as the inverse of the Passive-Active Spectrum and emphasises pride in one's group and pride in one's self, leading to a drive of self-esteem (Will to Self-Improvement). These two qualities are not mutually exclusive with one another, but focus on one or the other can be culture-dependent in terms of individualistic/collectivistic focus and individual-specific interpretations of broader group culture.

- **GAP Model**

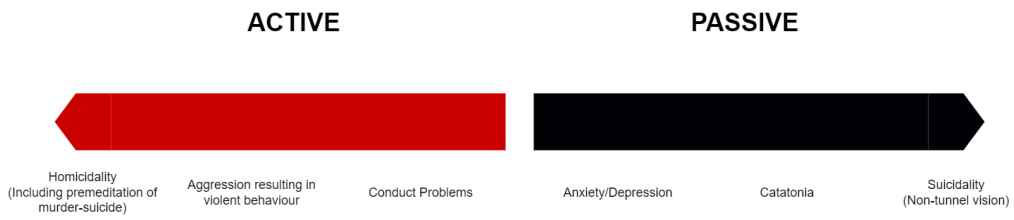
  The Active-Passive Spectrum, or General-Active-Passive (GAP), is a submechanic of the Instinct of Superiority that proposes a new classification and model for the acquisition of internalising and externalising disorders during both child and adult development. It focuses mainly on the reclassification of externalisation towards behaviour that results in non-victimless aggression as opposed to what we might call 'passive externalisation' (e.g. defiance, hyperactivity), which have been moved to the General grouping.

  The rationale behind this removal was that passive externalising behaviours are considered maladaptive almost exclusively when found in children, and considered merely as traits of personality for older adults (for example, hyperactivity in children is often viewed as eccentricity when they become adults). Apart from potentially being a result of bias towards child age cohorts, it reinforces the idea that these behaviours are somehow aggressive and must be 'fixed' through corrective behavioural modification, often of an aversive nature.

  GAP takes a holistic view to human behaviour and disorders (and can thereby be a classification of multiple mental disorders), and roughly divides the human population into three mental groupings. Classifications under GAP are also more permanent:

  - **General**, as in the general population, typically a supermajority of healthy self-esteem, who view themselves as being a part of society and the broader population,
  - **Active**, those who feel that they have been excluded from society and feel a need to lash out at it, or actively resist (externalising-dominant behaviour, non-victimless aggression),
  - **Passive**, those who feel excluded from society and exhibit traits of learned helplessness, even after no longer being dehumanised (internalising-dominant behaviour).

Note that comorbid active externalising and internalising behaviours are commonplace and in such cases, an individual may often be considered part of the Active grouping assuming significant externalising maladaptivity.



The Active and Passive categories are also used to refer to more extreme behaviours than what might otherwise be found in conventional literature regarding maladaptive behaviours, as Active/Passive groupings entail someone has passed their ‘breaking point’ and perceives themselves as being excluded from society to the point where they redefine their humanity or the humanity of others, at which point one moves into the Active-Passive spectrum.

Through this redefinition, they effectively no longer see themselves or others as human (positive definition) anymore. This is how we measure their breaking point, as once excluded from the definition of humanity, the definition of superiority in their minds becomes warped, forming a singular in-group consisting of themselves, and the unconscious or subconscious othering of all others.

This leads to a mechanic where dehumanising oneself for example, is viewed as a virtue in the sense that one might say ‘I’m separate from humans, I’m separate from the monstrosity that churned me out, and I’m not like them’. It may be perceived as a subconscious virtue, and the expectation to hold themselves to some form of ideal derived from general society remains intact. As a matter of fact, it can be said to be driving this process.

We propose the depressive hibernation model as a potential pathway to the biosocial evolution of depression in primates as a means of minimising energy expenditure, particularly in situations where it might not result in the gain of resources. This explanation is supported by neurobiological similarities between hibernation in other mammals and depression, as well as phenomena such as SAD (seasonal affective disorder) and causal relationships between social isolation and depressive symptoms.

Conscious aggression in the context of becoming active utilises the same process, but channelled into aggression against society, taking on a similar form in the active person's mind to the extent that one might say 'I'm separate from the monstrosity that churned me out, and I'm going to resist, and I'm going to right this wrong'. We believe both of these processes to be innately connected to the Instinct of Superiority and the result of perceived exclusion from a dominance/prestige-based hierarchy.

Whilst perceived societal exclusion is not the same as actual societal exclusion, their assessments of it are often accurate and help contribute to activity and passivity. Whether someone is classified as belonging to the General Population is based both on their self-perception at the individual level and societal perception at the aggregate level. The latter is typically decided by prevailing cultural factors regarding their acceptance and the relative laws and policies of the dominant legal jurisdiction in which they live. For example, many societies and subcultures (post-war Bosnia, American teenagers) are plagued by near-ubiquitous symptoms of clinical depression/trauma, but these are typically pervasive enough to be seen as being of minimal detriment to a person's function, and thereby not noticed or perceived to be deserving of treatment.

Note. The Active-Passive Spectrum is entirely reliant on self-perception, but one can be entirely disenfranchised from the general population if societal and self-perceptions align.

Self-perception determines whether one is in the general population, society whether one is out of it, but self-perception takes precedence over societal perception.

- **Us vs. Them**

Pride in one's group is defined by the Us vs. Them mechanic which models the level of othering, dehumanisation, conformity, and in-group protection ultimately expressed by end behaviours. This is often done at the expense of the humanity of outgroups due to widely-held perceptions of the securing of group interests having to detract from those of another group, often known as zero-sum bias. This belief is often more reinforced in groups coming from a lower socioeconomic strata, likely due to competition over resources and lower access to education.

- **Will to Self-Improvement**

The Will to Self-Improvement operates alongside Us vs. Them, and can be summed up as having the ambition to meet perceived societal

expectations, forming the core of *individualistic pride* (as opposed to Us vs. Them which offers *collectivistic pride*). Although it aligns closely with the value of self-direction, the definition of 'improvement' is often subjective and influenced by perceived group and societal values, whereas self-direction is defined by Schwartz as a more pure form of individualism.

Whilst it remains possible for Passive and Active individuals to display behaviours associated with Classical Superiority and its underlying mechanics, they are typically exhibited at much lower levels compared to the General population, often to the point of inhibition, and focused almost solely on either individualistic or collectivistic pride.

- **Path of Most Convenience**

  By contrast, the Path of Most Convenience evolved from the need for the organismic minimisation of resource and energy expenditure, which is particularly pronounced in primates. It is primarily defined by a feedback loop between minimal effort, apathy, and shallow pleasure (expressed as hedonism in the model), creating a lack of Will to Self-Improvement, and a vicious cycle that relies on initial conditions to be interrupted in some way to be restored to normal functioning.

  On a more base level however, it can best be described as a short-term cost-benefit analysis that humans instinctively perform in the search for continual stimulation or resource benefit.

  We believe that it can be principally exacerbated by a confining environment, dependency, and the prolonged fulfilment of at least a basic living standard or a continued routine, with potentially extremely elevated examples coming from solitary confinement, institutionalisation, substance abuse, and hikikomori, although the Path of Most Convenience operates to some level in all humans. Humans bound by the Path of Most Convenience at a more extreme level may profess the Will to Self-Improvement to meet current perceived societal expectations, but do not actually have an overriding will to do so.

- **Triune Strategies Theory**

  Strategies taken to acquire power on behalf of the individual vary widely in response to their microsocial climate. These have historically been regarded as dual strategies - dominance and prestige.

  However, due to the significant omission of the role mental disorders and emotional attachment plays in evolutionary fitness, current dual strategies theory is no longer

considered to sufficiently cover all interactions undertaken by humans in regard to their social rank. Mental disorders can hardly be said to typically result in a form of prestige, and the most common mental conditions emphasise submission/withdrawal rather than the aggression or coercion needed to establish dominance.

We instead propose a triune strategies theory comprised of dominance, prestige, or bargaining, where all strategies share a common purpose - that being to acquire power. We draw on dual-concern theory and the concept of soft/hard power in IR to conclude that neither of the three strategies are mutually exclusive with each other and are actually more effective when used in conjunction with one another, although a dominant strategy is always preferred based on an individual's predisposition and current situation.

- **Potential Relation to Fear/Shame/Guilt Cultures**

  It is additionally theorised that the concepts of both GAP (a derivative of bargaining) and Triune Strategies are related to the concept of Guilt/Shame/Fear cultures in anthropology, where certain strategies or tactics are considered more culturally normative than others. These mappings are as follows:

  - Guilt - Bargaining/Prestige (Triune), Passive (GAP)
  - Shame - Prestige (Triune), General (GAP)
  - Fear - Dominance (Triune), Active (GAP)

  Where it may be argued that in guilt societies, which overlap with much of the modern West, individual introspection and intellectualism are traditionally considered the foremost values, thereby emphasising prestige/passivity.

IV. Outputs.

A system of outputs has been carefully considered such that it is capable of describing long-term human personality and true values upon which an individual may base their behaviour, in addition to short-term actions and decision making when presented with a list of choices.

For the former, we have decided to use a hybrid system composed of BASC-2 and Schwartz's Universal Values Model, whilst the latter is flexible, though the exact workings are yet to be decided upon. It is conjectured however, that it may be based upon extant work in the field of cognitive architecture.

- **BASC-2**

  The Behavioural and Emotional Screening System was originally developed to measure the personality and psychological state of children, although it functions as a general

proxy measure of one's mental health in the model. Only clinical scales have been included. It is comprised of the following fields:

- Aggression
- Anxiety
- Attention Problems
- Atypicality
- Conduct Problems
- Depression
- Hyperactivity
- Learning Problems
- Somatisation
- Withdrawal

Which may be measured on a scale from 0-100.

- **Schwartz**

In contrast to BASC-2 values, Schwartz has been taken as a proxy for human personality and fundamental values, which exist in some form in all societies. However, a slight alteration has been made in that Hedonism in Schwartz's Theory and conventional psychological literature refers simply to pleasure, as opposed to shallow pleasure which is often used as an alternative definition. However, no major omissions/additions have been made to its original fields:

- Achievement
- Benevolence
- Conformity
- Hedonism
- Dominance (this was originally 'Power' in Schwartz, but power has been redefined to mean 'access to material/psychological resources' in the terminology)
- Tradition
- Security
- Self-Direction
- Stimulation
- Universalism

- **Differentiation Between Short/Long-Term Outputs**

Short-term outputs however are flexible and user-defined to fit the circumstances. These take into account a number of immediate parameters in terms of change (for example, the additional psychological resources gained from a choice, and the duration thereof).

Based on extant long-term outputs during the period a choice is being made, an individual makes a choice from those sets.

The changes from these choices then filter back into the long-term model at a reduced rate, although the discrete changes from the short-term model may cumulatively result in broader personality changes, or if the changes defined in the short-term situation are drastic.

V. Model Implementation

A number of different modes are to be combined into a single Discord bot during testing, any number of which may be selected by the end researcher during initialisation, allowing for the simultaneous analysis of multiple approaches, both probabilistic and deterministic. Multiple saves may also be stored and accessed at the same time in different slots, whilst bot commands should follow a traditional CLI approach, not unlike other cognitive architectures during research. Data analysis tools should be in-built, along with the ability to alter and change connections/flow rates for the model on the fly.

- **Model Characteristics**

  A revised General Model of Human Nature should be SD-based (System Dynamics) and mapped out as a CLD which can first be tested and refined in Vensim before being scripted into a Discord bot. The newer model is to be a derivative of the older Functional Model of Human Nature, which can largely be taken verbatim, although some of the output connections need to be made more recurrent, whilst inputs need to be overhauled.

  The model is primarily split into two parts: a long-term model, which can be advanced separately, with fixed inputs and outputs that may be adjusted either environmentally in later simulations, or by the researcher at first; and a short-term model, which uses personality values and behavioural tendencies established in the long-term model to perform short-term decisions on a user-defined list (See **Differentiation Between Short/Long-Term Outputs** for more information).

- **Programmatic Implementation**

  Once programmed in, the model is to follow a probabilistic approach using known statistical correlations in the literature, with those sources linked and built into the model for easy access. Multiple agents in the same model should also be able to be run by a single user simultaneously, in order to lay the groundwork for multiple individual agents. By default, one tick should be equivalent to one month in the long-term model, and any number of ticks can be iterated on by the end researcher.

As changes are modelled by maths equations, it should be equally possible to divide a single tick into multiple user-defined subticks as rates of change during the same tick may be abstracted linearly. Key terms can be defined using the format <prefix><key term>. The project (and by extension, bot) is to be made public on GitHub.

- **Future Additions**

  Only the previous deterministic prototype model and current Revised Model (Long-Term) are planned to be added into the bot, with a Short-Term Model of Human Nature added at a later date. The eventual plan of future additions are to allow for the scaling up of individual agents to be capable of simulating anthropological societies or real-world conditions at the mesosocial level, which may then be utilised for complexity analysis, as well as by other projects through public software releases (See also **Crystal Ball Conjecture**).

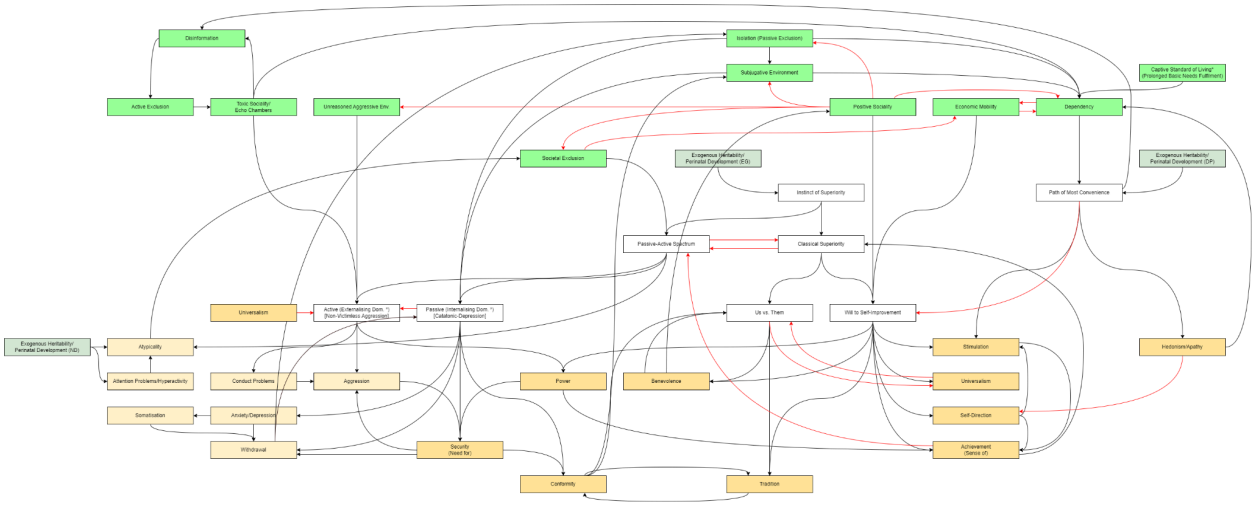
VI. Afterword and Conclusion.

Most of the hard work in building a General Model of Human Nature has already been done: a working prototype has already been formulated (although it requires editing), and numerous cognitive architectures in the literature have the capability to act as a Short-Term Model of Human Nature (e.g. SOAR/ACT-R).

Potential difficulties may arise during the probabilistic phase of modelling, as boolean flags and other forms of programmatic logic would be more difficult to implement, and stocks/flows require careful balancing to avoid tipping the scales too much. An additional challenge may be posed by the requirement to fit rates of change into a defined timescale, although this should pose less of a problem given that flow rates may now be freely adjusted.

- **Previous Models**

  The previous Functional Model of Human Nature was regarded to have three main methodological flaws, namely that it was incapable of accounting for short-term instincts or decisions, that function inputs were not empirically established, and therefore failed to account for all cases of interest, and that outputs failed to feed back into inputs; namely that a person's behaviours failed to change their environment as much as it otherwise should have:



Key: (1. /2.) - Green boxes denote initial inputs, with bright green (1) indicating environmental characteristics, and faded green (2) indicating exogenous heritability variables. [ ] - White boxes denote stocks representing hypothesised internal mechanics of human behaviour.

(1. /2.) - Yellow boxes denote outputs, with bright yellow (1) indicating values drawn from Schwartz's Theory of Basic Values, and faded yellow (2) representing stocks drawn from the BASC-2.

(→) Red arrows represent causal flows with negative polarity, whilst (→) black arrows indicate positive ones. See note on Hedonism in **Internal Mechanics of Human Behaviour** for varying use of the term in this model.

It is important to note that within the Functional Model, results of individual stocks do not represent absolute values, but rather overall trends. Even prior to any flow rate adjustment, the model performed qualitatively well, and returned sensible results underneath its expressed design philosophy. The results of the Functional Model contrasts with other SD models which may function more for expository rather than simulatory purposes, and its coherent functioning is remarkable for a system of its size.

The model was developed and refined in Vensim PLE through a deterministic, simple additive approach using Euler Integration, meaning that each flow performed either an addition (+) operation, or a subtraction operation (-). No additional mathematical operations, weights, logic, or the adjustment of flow rates were used in the simulation, with the sole exception of 'Passive (Internalising Dominant) - Catatonic Depression', which was set to contribute twice the flow rate to 'Active (Externalising Dominant) - Non-Victimless Aggression' than it otherwise would for system stabilisation. All initial values were set to 1.